

**FRESNO, CALIFORNIA
CLASS SPECIFICATION**

SENIOR POWER GENERATION OPERATOR/MECHANIC

FLSA STATUS:

Non-Exempt

CLASS SUMMARY:

The Senior Power Generation Operator/Mechanic is the second level in a two level Utilities Power Generation series. Incumbents are responsible for serving as a lead worker and for performing advanced technical work in the administration, repair, service, and maintenance of equipment, machinery, and related apparatus within the City's water/wastewater treatment plant power generation facility.

The Senior Power Generation Operator/Mechanic is distinguished from the Power Generation Operator/Mechanic by its responsibility for serving as a lead worker to other employees.

TYPICAL CLASS ESSENTIAL DUTIES: (These duties are a representative sample; position assignments may vary.)

**FRE-
QUENCY**

- | | | |
|----|--|------------------|
| 1. | Makes work assignments, oversees the work of other staff, trains, prepares reports, and performs administrative tasks in the absence of the supervisor. | Daily
50% |
| 2. | Leads and participates in the operation, repairing, overhauling and implementing preventative maintenance of single/dual fuel co-generation power plant, including but not limited to dual-fueled/clean burn engines, single/dual fueled gas turbines, dual-staged steam turbines, high/low-pressure boilers, waste gas flares, diesel and gas emergency generators, gear reduction oil systems, automatic valves, filters, fuel systems, pumps, air compressors, gas and air compressors, cooling tower, water softening systems, heat exchangers, generators, diesel fuel systems, natural gas fired engine driving a production water well and/or other applicable items. | Daily
70%-75% |
| 3. | Prepares and maintains records related to operational activities. | Daily
10% |
| 4. | Evaluates and performs chemical testing and treatment on circulatory cooling water loop and boiler/feed water. | Daily
10%-15% |
| 5. | Leads and participates in operating human-machine interface computers, designating applicable start and/or stop times in appropriate order based on applicable scenarios and for monitoring Power Generation activities. | Daily
70%-75% |

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TYPICAL CLASS ESSENTIAL DUTIES: (These duties are a representative sample; position assignments may vary.)		<u>FRE- QUENCY</u>
6.	Inspects, regulates, and implements adjustments to equipment to ensure optimal power output and ensuring compliance with environmental regulations and standards.	Daily 10%
7.	Operates and maintains continuous emissions monitoring system utilizing EPA protocol gasses, including reporting calibrations and performing required audits.	Daily 25%
8.	Ensures compliance and adherence to safety procedures; recognizes and corrects potential on the job hazards, and uses safe operating procedures and safety equipment in performing routine and unusual procedures to ensure the health and safety of staff.	Daily 20%-25%
9.	Monitors gauges, meters, and other measuring and recording devices.	Daily 70%-75%
10.	Estimates material, supply, equipment, and labor requirements for applicable projects.	Weekly 10%
11.	Monitors and maintains supply and equipment inventory and requisitions replacement items.	Weekly 15%-20%
12.	Participates in a variety of meetings, committees, and/or other related groups in order to receive and convey information.	Weekly 15%
13.	Performs other duties of a similar nature or level.	As Required

Training and Experience (positions in this class typically require):

- Five years of increasingly responsible experience in operating, maintaining, monitoring, servicing, and repairing mechanical and electrical equipment similar to that used in engine and/or gas turbine driven electrical Power Generation Systems or three years of experience as a Power Generation Operator/Mechanic with the City of Fresno is required;
- OR
- An equivalent combination of education and experience sufficient to successfully perform the essential duties of the job such as those listed above.

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Licensing Requirements (positions in this class typically require):

- Basic Class C License

Positions assigned to a water systems environment Require:

- Water Distribution Operator Certificate, Grade D2

Positions assigned to a Wastewater systems environment:

- Grade III Mechanical Technologist Certification

Knowledge (position requirements at entry):

Knowledge of:

- Inventory control principles and practices;
- Confined space entry techniques, hazards, procedures and safety requirements;
- Large dual-fuel/clean-burn or single/dual-fueled Power Generation engines, steam turbines, high/low pressure boilers, generators, compressors, gear reduction oil systems, automatic valves, filters, fuel systems, pumps, air compressors, cooling tower, water softening systems, heat exchangers, generators, diesel fuel systems, natural gas fired engine driving a production water well and associated auxiliary equipment operations, maintenance, and servicing practices;
- Manual and automatic switching operation principles, procedures and practices of generating equipment;
- Mechanical, electrical and hydraulic principles related to the operation and maintenance of power generation systems;
- Layout, equipment, instrumentation and functions of electrical generation, transmission and distribution systems;
- Safe work practices and procedures;
- Computerized maintenance management systems;
- Basic electricity and electronics used in Power Generation.

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Skills (position requirements at entry):

Skill in:

- Prioritize and assigning work; detail oriented and ability to multi-task*
- Training employees in proper work methods
- Safely operating and maintaining applicable tools and equipment
- Operating and maintaining large dual-fuel/clean-burn or single/dual-fueled Power Generation engines, steam turbines, high/low pressure boilers, generators, gear reduction oil systems, automatic valves, filters, fuel systems, pumps, air compressors, gas and air compressors, cooling tower, water softening systems, heat exchangers, generators, diesel fuel systems, natural gas fired engine driving a production water well and/or other applicable items.
- Identifying causes of accidents/injuries/incidents and preventative measures to mitigate future issues; Making recommendations for corrective procedures and measures
- Using computers and applicable software applications
- Preparing, analyzing, and maintaining operational records
- Prepare and proofread clear, concise, and comprehensive reports, records, and other written documents
- Testing water for proper chemical levels
- Monitoring and maintaining laboratory inventory
- Ability to quickly evaluate situations and make quick decisions on the appropriate actions necessary to keep the equipment operating properly and safely
- Identifying causes of accidents/injuries/incidents and preventative measures to mitigate future issues; Making recommendations for corrective procedures and measures
- Reading and interpreting blueprints, schematics, and other technical drawings related to job duties
- Communication, interpersonal skills as applied to interaction with coworkers, supervisor, the general public, business, organizations, elected and appointed officials, media, etc. sufficient to exchange or convey information, give/receive work direction

Physical Requirements:

Positions in this class typically require: feeling, finger dexterity, grasping, hearing, repetitive motions, seeing, talking, bending, kneeling, lifting, reaching, standing, stooping, walking, balancing, climbing, crawling, crouching, pulling and pushing.

Very Heavy Work: Exerting up to 100 pounds of force occasionally, and/or in excess of 50 pounds of force frequently, and/or in excess of 20 pounds of force constantly to move objects.

Incumbents may be subjected to moving mechanical parts, electrical hazards, vibrations, fumes, odors, dusts, poor ventilation, adverse weather conditions, environmental hazards, gasses, chemicals, oils, work space restrictions, inadequate lighting and intense noises.

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Note:

The above job specification is intended to represent only the key areas of responsibilities; specific position assignments will vary depending on the business needs of the department.

Classification History:

Draft prepared by Fox Lawson & Associates (LM)

Date: 12/2007

Reviewed by the City of Fresno

Date: 5/2008